# Uniform Ballot and Voting System Procedures Guide

Security, Testing, Inventory Control and Troubleshooting

Montana Secretary of State
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#### **Contact Information**

- Secretary of State's Office
  - PO Box 202801, Helena, Montana, 59620-2801
  - Lisa Kimmet, Elections Deputy

• Office: (406) 444-5376

Email: soselections@mt.gov

- Election Systems & Software
  - Customer Service (877) 377-8683
  - Laura Schmitz, Montana Customer Service Manager
    - Mobile: (916) 548-4394
  - Lori Mommaerts, Regional Sales Manager
    - Mobile: (206) 250-4318

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# 1 Ballot and Voting Equipment Security Procedures

From the time the ballots, voting equipment and memory cards are received, they should be sealed with numbered security seals and stored in a locked storage location that is not generally accessible. A Chain-of-Custody log should be used to record all the times the voting equipment and supplies are accessed and reasons. A <u>log</u> should be maintained of all persons having access to that storage location and show the names dates times and purposes for all persons having access to that storage location.

#### **Pre-Election Voting Equipment and Ballot Handling**

At the conclusion of the pre-election testing of machines, the memory card(s) should be sealed in each machine and secured with a numbered security seal. The security seal number should be recorded on the <a href="Chain-of-Custody log">Chain-of-Custody log</a>. Once the Chain-of-Custody log is complete, a copy will need to be transported to the polling place for the poll judges to verify the seals are intact to ensure integrity of the machine.

Ballots, voting machines, and supplies should have a label identifying the polling place to which they are assigned. Ideally, the bag or container which contains the Chain-of-Custody log should be secured with a numbered security seal and recorded on the Chain-of-Custody log contained inside to be verified at the polling place.

County Election Administrators are able to choose the method of delivery for ballots, voting equipment, and supplies to the polls. They may either (1) deliver or have election judges deliver items the morning of the election from a central location or (2) deliver the items prior to election day and have the sealed items kept in a secure location at the polling place. These two procedures as detailed as follows:

#### Delivery of the Ballots and Voting Equipment on Election Day

If the voting equipment and ballots will be delivered to the designated polling place on election day, the following procedure shall apply:

At a time predetermined by the election administrator, the chief polling place judge or designed election judges, designated election officials, or a law enforcement officer should pick up the sealed ballots, voting equipment, and election materials. Ideally, a copy of the <a href="Chain-of-Custody log">Chain-of-Custody log</a> with the appropriate section completed should be sealed in the polling place materials. Upon arrival at the polling place, the chief polling place judge, in the presence of at least one election official, shall receipt the materials received and verify the security seals are intact and match the seal numbers recorded on the Chain-of-Custody log.

- 1. The Election Administrator shall administer the oath to the election officials from each polling place when they arrive at the county election office on election morning to pick up the ballots and voting equipment, if they have not previously been sworn in.
- 2. The election officials transporting the materials to the polling place shall:
  - Check the supplies provided by the election administrator.
  - Examine ballot, voting equipment and required material's security seals for evidence or tampering or removal and verify the seal numbers match those recorded on the Chain-of-Custody log. Record voided or missing security seals on the log and report them to the election administrator.
  - Without opening any ballot package ensure that the ballots are the correct ones for the precinct and polling place.
  - Ensure that a copy of the Ballot Certification Report and Chain-of-Custody log are provided as part of the materials to be transported to the polling place.
  - Transport the assigned ballots, voting equipment, and election materials to the polling place.
- 3. Upon arrival at the polling place, deliver the ballots, voting equipment, and materials to the Chief Judge or designee
- 4. In teams of two, polling place election officials shall examine ballot, voting equipment and required material's security seals for evidence of tampering or removal and verify the seal numbers match the seal numbers recorded on the Chain-of-Custody log. Record voided or missing security seals on the log and report them to the election administrator.
- 5. Election officials shall setup the polling place (ballots, voting equipment, etc.) as directed and according to procedures in the Election Judge Handbook and this Guide.

#### **Delivery of the Voting Equipment Prior to Election Day**

If the election administrator determines that voting equipment or materials should be delivered on a day prior to election day, the following procedures shall apply:

At a time designated by the election administrator, two designated election officials, a law enforcement officer or designated election judges shall be used to deliver the ballots, voting equipment and election materials to the polling place. The election administrator can employee other individuals to assist in the delivery of the ballots, voting equipment and related materials to the polls as long as these individuals are directly supervised by election officials.

- 1. The Election Administrator shall administer the oath to anyone designated to deliver the ballots, voting equipment and other materials, if they have not previously been sworn in.
- 2. The persons transporting the materials to the polling place shall:
  - Check the supplies provided by the election administrator.
  - Examine ballots, voting equipment and required material's security seals for evidence of tampering or removal and verify the seal numbers match those recorded on the Chain-of-Custody log. Record voided or missing security seals on the log and report them to the election administrator.
  - Without opening any ballot package ensure that the ballots are the correct ones for the polling place.

- Ensure that a copy of the Certificate of Number of Ballots and Chain-of-Custody log are provided as part of the materials to be transported to the polling place.
- Transport the ballots, voting equipment, and election materials to the designated temporary secure location for the polling place. In no event shall the tabulators or ballots be stored in a location other than the temporary secure location established by the Election Administrator.
- 3. Upon arrival at the polling place, in teams of two, polling place officials shall examine ballots, voting equipment and required material's security seals for evidence of tampering or removal and verify the seal numbers match the seal numbers recorded on the Chain-of-Custody log. Record voided or missing security seals on the log and report them to the election administrator.
- 4. Election officials shall setup the polling place (ballots, voting equipment, etc.) as directed and according to procedures in the Election Judge Handbook and this Guide.

#### **Important Reminder**

Polling places must open at 7 a.m. unless otherwise directed by the election administrator for small precincts. Priority should be given to ensuring that the correct materials have been received, the security seals are intact and that the seal numbers match those recorded on the Chain-of-Custody log, sufficient ballots are available to be distributed at 7 a.m., and setting up tabulation and accessibility equipment by 7 a.m.

If the set-up of the tabulator is delayed, ballots should be distributed, voted and stored in the Auxiliary Bin on the front of the tabulator ballot box. When the tabulator is put into service, ballots should be removed from the Auxiliary Bin and scanned by two election judges. Election judges scanning Auxiliary Bin ballots shall preserve as much ballot secrecy as possible.

#### Early Pick-up of Ballots Prior to the Close of Polls on Election Day

If directed by the election administrator, arrangements may be made to pick-up or return ballots to the election office or designated ballot tabulation location. When applicable, follow county instructions regarding separating and tracking ballots pursuant to the tabulator(s) that scanned the ballots for post election audit purposes.

- 1. Election officials shall seal the ballot box or place the designated ballots in the designated container with numbered security seals and record the seal numbers on the Chain-of-Custody log.
  - Ensure that all ballots issued and marked in the pollbook prior to the early pick-up are sealed and returned.
  - As ballots are removed from tabulators, ensure that ballots and machine reports are separated and marked according to your county's post election audit procedures (for example: color coded, numbers, precinct name, etc.).
    - When printing early pick-up tabulator reports, be sure to not clear the totals, unless instructed to do so by your election administrator.
- 2. Transport the ballot box or designated ballot container to the election office or designated ballot tabulation location.

3. Once the ballot box or container is received at the county election office or designated ballot tabulation location, verify the security seal numbers match the Chain-of-Custody log and are not missing or do not appear to be tampered with.

#### **Return of Voted Ballots and Voting Equipment from Polls**

- 1. Check the Auxiliary Bin for ballots and scan ballots deposited in the Auxiliary Bin unless directed otherwise by the election administrator.
- 2. Print tabulator reports according to county and Uniform Voting System Procedures.
- 3. Shut down the tabulator.
- 4. Counties using precinct tabulators may choose to either:
  - Return the tabulator to the election office with the with the media card sealed in the tabulator; or
  - Remove the media card and return the media card in a sealed container with the tabulator's ballots and report and have the tabulator returned to the election office at a different time.
    - If the tabulator's media card is returned separate from the tabulator; ensure that the tabulator's media card slot is re-sealed and the Chainof-Custody is updated.
  - NOTE: The Uniform Voting System Procedures do not recommend removing the AutoMARK Access Terminal memory card since no results are recorded on that card. The AutoMARK media card should remain sealed in the unit during transportation and removed at the election office before storage.
- 5. As ballots are removed from tabulators, ensure that ballots and machine reports are separated and marked according to your county's post election audit procedures (for example: color coded, numbers, precinct name, etc.).
  - When printing early pick-up tabulator reports, be sure to not clear the totals, unless instructed to do so by your election administrator.
- 6. Remove ballots from the tabulator ballot box(s) and seal in a transportation ballot box or container, seal using numbered security seals and record the seal numbers on the Chain-of-Custody.
  - Place Write-in ballots from the Write-in Bin in an envelope marked "Write-in Bin". Place the "Write-in Bin" ballots in the ballot box or container with the regular ballots.
- 7. Depending on the county method for returning the tabulator and voting equipment; either:
  - Place the tabulator in the transportation case with memory card intact and sealed. The seal numbers should be recorded on the Chain-of-Custody log; or
  - Prepare the tabulator for storage at the designated location. Ensure that the tabulator is sealed and that the security seal numbers are recorded on the Chain-of-Custody log.
- 8. Ensure all ballot and voting equipment security seal numbers are recorded on the Chain-of-Custody log and that the log is completed, and is returned with the ballots to the election office or ballot tabulation location.
- 9. Upon arrival at the election office or the designated central ballot tabulation location, the receiving election officials must ensure that the seals on the ballots, voting equipment (*when applicable*), and elections materials are intact and match the numbers recorded on the Chain-of-Custody log. Any discrepancy should be noted on the log and explained in writing.

#### **Storage of Ballots**

- 1. Collect and label all ballots for storage according to county and post election audit guidelines (for example: color coded, numbers, precinct name, etc.).
- 2. Seal the labeled ballot containers and record the security seal numbers on a log describing the contents of the container (*i.e.* which ballots, which tabulator counted the ballots, etc.).
- 3. Collect, label, and seal all of the related election materials (i.e. logs, sets of test ballots, etc.). Record these security seal numbers on a log describing the materials.
- 4. Store the ballots and election related materials in a secure location not generally accessible. A log should be maintained of all persons having access to that storage location. The log should show the names dates times and purposes for all persons having access to that storage location.
- 5. Store the storage location access log, ballot and election material logs in a secure area not generally accessible.
- 6. The secure ballot, election materials, and voting equipment storage location shall have the following characteristics:
  - The location shall remain locked at all times
  - Access to such location shall be exclusively controlled by the election administrator.
  - Access shall only be granted to such location for the purpose of machine programming, maintenance, testing or set-up.
  - A county election official must be present during any such programming, maintenance, testing or set-up.
- 7. Please refer to Section 8 of this guide for storage procedures in regards to voting systems.

# **2** Voting Equipment Set-up

Montana currently utilizes three types of voting equipment: Voter Assist Terminals, Optical Scan and Digital Scan Tabulation equipment.

#### **Accessibility Equipment**

#### **ES&S AutoMARK**

The ES&S AutoMARK™ voter assist terminal is a ballot-marking system designed to provide privacy and accessibility to voters who are blind, vision-impaired, or have a disability or condition that would make it difficult or impossible to mark a

ballot the usual way. The AutoMARK also provides language assistance to voters who are more comfortable speaking a different language or who need to have the ballot ready to them.

 Although the AutoMARK is designed to be used by individuals with disabilities, anyone may use the AutoMARK. The AutoMARK must be setup and available for use at each polling place and each absentee ballot voting location.



#### Polling Place Set Up

- 1. Ensure you have the correct AutoMARK for the precinct/polling location.
- 2. Open the transportation case using the flaps on the side and team-lift the AutoMARK onto a wheelchair accessible table.
- 3. Ensure the Security Seals have not been tampered with and match the Chain-of-Custody log.
- 4. Open the AutoMARK lid by sliding the latches to the outward position and lifting the lid up and back until it comes to rest on top of the AutoMARK.
- 5. Raise the touch screen monitor vertical and close the lid.
- 6. Position the AutoMARK so the screen is private and not visible to others.
- 7. Open the ballot feed tray by lifting up then pulling out and down until the tray is horizontal.
- 8. If available, install the privacy shield on the AutoMARK.
- 9. Plug the AutoMARK into a wall outlet. Ensure the cord is not damaged.
- 10. Insert the brass key into the Mode Switch and turn to the 'ON' position.
- 11. Remove the key and store in a secure area with the chief judge.
- 12. The screen will remain blank for about 60 seconds while starting up.
- 13. The 'ON' light color will be green if the AutoMARK is running on external power. If the color is orange the AutoMARK is running on internal battery power: if the light is orange, ensure the AutoMARK is properly plugged in and the outlet is on.
- 14. Print a test ballot and ensure no obstacles are preventing wheelchair access to the AutoMARK.

#### **Tabulators**

#### ES&S Model 100

- The ES&S Model 100 is a precinct-based, voter-activated paper ballot counter and vote tabulator. The Model 100 possesses the capability to recognize and alert voters to over and undervoting errors, allowing voters to make changes to their ballots. When the polls close, the ES&S Model 100 prints out a paper tally.
- o The ES&S Model 100 may also be used as a central ballot counter.
- Set up at the Polling Place
  - 1. Ensure the correct M-100 is at the polling location.
  - 2. Remove the M-100 from the transportation case and place on the ballot box. Ensure not to bend any pins and that the ballot feed slot flap is open.
  - 3. Ensure the Security Seals have not been tampered with and match the Chain-of-Custody log.
  - 4. Use the brass mode switch key to turn on the M-100 and store key in a secure location with the chief judge.
  - 5. Run a 'Zeros Report' and ensure no ballots are in the ballot box.
  - 6. Secure the M-100 for voting.

#### **ES&S Model 650 (150-Legacy)**

 The ES&S Model 650 is a high-speed central paper ballot counter and vote tabulator.

#### Set up

- 1. Ensure that the Model 650 is on a level and stable surface.
- Remove the dustcover (if applicable) of the Model 650 and inspect the seals and the machine to ensure the machine has not been tampered with. Verify correct seal numbers against the chain of custody log.
- 3. Inspect the power cord for frays. If none are found, plug in and power on the machine.
- 4. Load the election definition into the machine.
- 5. Test the Model 650 with a predefined and clearly marked batch of test ballots and verify the results.
- 6. Zero out the machine and run a report indicating the machine is currently set to zero.

#### **ES&S DS200**

- The ES&S DS200 is a precinct-based, voter-activated paper ballot counter and vote tabulator. The DS200 possesses the capability to recognize and alert voters to over and undervoting errors, allowing voters to make changes to their ballots. When the polls close, the ES&S DS200 prints out a paper tally.
- o The ES&S DS200 can be used as a central ballot counter.

#### Set up at the Polling Place

- 1. Ensure the correct DS200 is at the polling location.
- 2. Take the DS200 from the transportation case and place the





machine on the ballot box. Ensure not to bend any pins and that the ballot feed slot flap is open.

- a. M-100 ballot boxes can be retrofitted to support a DS200. Changes include a metal "plunger" that secures the DS200 into place.
- 3. Ensure the Security Seals have not been tampered with and match the Chain-of-Custody log.
- 4. Use the brass mode switch key to turn on the DS200 and store key in a secure location with the chief judge.
- 5. Run a 'Zero's Report' and ensure no ballots are in the ballot box.
- 6. Secure the DS200 for voting.

#### **ES&S DS850**

- The ES&S DS850 is a high-speed, digital scan, central paper ballot counter and vote tabulator.
- The DS850 possesses the capability to route ballots to different bins depending on selected criteria (ie, write-ins, overvotes, and blank ballots).





- 1. Ensure the Security Seals have not been tampered with and match the Chain-of-Custody log.
- 2. Power the machine on, and ensure that you have the correct passwords to access the machine.
- 3. Run a 'Zero's Report' and ensure no ballots are in the three ballot trays.
- 4. Secure the DS850 for ballot tabulation.

# **3** Voting Equipment Chain-of-Custody

As soon as voting equipment is received by the election office, the equipment should be sealed with numbered security seals and these security seal numbers recorded on a <u>chain-of-custody log</u> maintained by the election administrator. A chain-of-custody log should maintain information as to who accessed the equipment, when the equipment was accessed and why.

- The Chain-of-Custody procedures along with security seals and inventory controls ensure that voting units are properly and securely controlled and accounted for at all times throughout the election administration process.
- ▶ The following log is for tracking, voting systems to the poll and back.

The four sections of the Chain-of-Custody log are:

- Voting systems prepared by the election administrator
- Voting systems received at the polls and verified before polls open.
- Voting systems prepared after the poll closes
- Voting systems received by the election administrator

A Security Seal Log is included and is used for logging each and any change that occurs in the Chain-of-Custody log. This log is located on the reverse side of the Chain-of-Custody log. It is recommended that when printing this file that you set your printer to duplex.

# 4 Voting Equipment Security Seal Placement

As soon as voting equipment is received, it should be acceptance tested and sealed with numbered security seals that are recorded on a chain-of-custody log.

- ▶ The Secretary of State's office has developed checklists outlining security procedures for ballots, voting equipment, and voting system media.
- ▶ These checklists incorporate best practices such as tamper-evident seals, chain-of-custody procedures, and two-person security measures.
  - Security and Testing Procedure checklists for Ballots and <u>all</u> equipment are in the appendix.

There are a number of security procedures that can be implemented to mitigate conspiracy and sabotage concerns while making voting systems significantly more secure. The following is a brief overview for some of the industry's best practices.

- Security Seals
  - Security Seals are tamper-proof, numbered seals that allow voting devices to be inspected for any evidence of tampering.
- Security Seal Placement
  - AutoMARK (2 Security Seals)
    - ▶ Election Media Door
    - Across case halves
    - Do not put seal on ADA port.



- Model 100 (3 Security Seals)
  - Access Slots (2)
  - Printer/Key access (1)
  - Model 100 Ballot Box (3 Seals)
    - ▶ Ballot Doors (2)
    - Accessory bin (1)
  - Storage with Ballots
    - ▶ All ballot access points (4)



- Model DS200 (2 Seals
  - Seal on USB/Power door
  - Across the case halves.
  - DS200 Ballot Box
    - All ballot access points (4 seals)
- Model 650 (2 Security Seals)

- Across media drives
- Across rear door
- Model DS850 (6 Seals)
  - Right hand side of machine (facing the machine) one seal on each USB door (three seals total).
  - ▶ Left hand side of machine (facing the machine) one seal on door holding power cords.
  - One seal on the back door of the machine.
  - One seal located on the back of the machine on the top panel.
- **Election Management Software** (Seal numbers will vary by machine)
  - Across all computer access points, including USB ports and drives.
    - Ensure this computer is not connected to the Internet or Network.

# **5** Voting Equipment Inventory

Any changes to county voting equipment need to be recorded on county inventory controls and reported to the Secretary of State's office.

- ▶ All equipment, including equipment purchased in whole or in part with federal HAVA grant funds must be recorded on the county inventory. The title is vested with the county upon acquisition.
- ▶ Equipment shall be used in the program for which it was acquired as long as needed, whether or not the program continues to receive federal funds.
- ▶ Procedures for managing equipment (including replacement equipment) purchased in whole or in part with federal HAVA grant funds must, as a minimum, meet the following requirements:
  - Maintain property records including the specific requirements listed below.
  - Conduct and reconcile a physical inventory of the property at least once every two years.
  - Develop a control system to ensure adequate safeguards to prevent loss, damage or theft of the property. Any loss, damage, or theft shall be investigated.
  - Proper procedures for sale, trade-in or disposal of equipment must be established and followed to ensure the highest possible return.
- ▶ The State must be informed of any changes affecting voting equipment.
  - The Secretary of State has an <u>inventory template</u> that includes the following fields:
    - Model #
    - Status
    - Serial Number
    - Storage Location
    - Election Day Location
    - Condition
    - Current Hardware Management Agreement (HMA)
    - HMA Expiration
    - · Title Holder
    - Acquisition Date
    - Cost
    - Federal Share (percent of machine cost)
    - State Share (percent of machine cost)
    - County Share (Percent of machine cost)
  - Please update your inventory log at least once every two years. Once the log is updated, please send it to the Secretary of State's office, to ensure accurate information is on file.

# **6** Voting Equipment Troubleshooting

If at any point a voting system is not working properly, notify the election office to make them aware of the situation and to provide additional instruction. The Troubleshooting information in this Guide, and in the Election Judge Handbook address the most commonly encountered problems and error messages associated with the ES&S AutoMARK, M-100, and DS200.

- ▶ Troubleshooting guides include:
  - Contact Information
  - Message to the elector
  - Failure procedures
  - Problem and Error Messages
  - Security Procedures

Please note, pursuant with ARM 44.3.1714, if the election administrator or counting board has reason to believe that the voting machine is not operating correctly, the count must be halted and the machine must be tested., as applicable in accordance with the procedures specified in the instruction manuals, users guides, and technical manuals provided by the manufacturer of the voting system, as well as the election judge handbook, except in cases in which those materials conflict with state laws or rules, in which case the laws or rules shall apply.

### Troubleshooting the ES&S AutoMARK Voter Accessibility Terminal (VAT)

Please keep a copy of this Troubleshooting guide with each ES&S AutoMARK Additional references are provided in your election day supplies:

(ES&S AutoMARK Election Day Checklist and Montana Election Judge Handbook).



The system manufacturer and Secretary of State election office is available to help with any AutoMARK troubleshooting. Please call if you have problems or questions: ES&S 1(877)377-8683 / Secretary of State Elections Office 1(406)444-7911

Message to the elector: In addition to ballot voting instructions give the elector the following guidance:

- An election judge will assist with inserting your ballot. If you believe that you have encountered a problem while using the AutoMARK voter assistance terminal please signal an election judge to assist in resolving the error and ensure that the ballot stub has been removed from your ballot.
- After marking and printing your ballot, return ballot to election judge in the secrecy sleeve provided.

#### If the AutoMARK fails during an election: Use additional AutoMARK if present and:

- Notify elector that the secrecy of their ballot may be compromised when removing ballot from voting system.
- Reference common troubleshooting problems below for possible problem and solution.
- Document machine number, date and time, problem and actions taken to remedy problem.
- If problem persists, notify County Election Administrator (possibly request replacement AutoMARK).

Problem or (Error Message)	Probable Causes	Possible Solution
AutoMARK 'Locks' up	<ul><li>Unknown</li></ul>	Shut down and restart system.
Ballot Inserted and Rejected (Ballot Not Recognized)	<ul> <li>Ballot was inserted incorrectly.</li> <li>Ballot stub is attached to ballot.</li> <li>Ballot style not stored on VAT.</li> </ul>	<ul> <li>Re-insert ballot.</li> <li>Remove ballot stub and re-insert.</li> <li>Verify correct election definition is</li> </ul>
(Paper misfed. Please contact an election official)	<ul> <li>Ballot may be damaged.</li> <li>Ballot feed tray is misaligned.</li> <li>PV scanner is smeared or dusty.</li> </ul>	used.  Replace ballot if damaged.  Check ballot feed tray alignment.  Clean PV scanner with canned air.
Ballot Inserted and Jammed	<ul><li>Ballot was inserted incorrectly.</li><li>Rear AutoMARK door is ajar.</li></ul>	<ul> <li>Remove ballot (instructions below).</li> <li>Remove ballot and close rear door.</li> </ul>
(Paper misfed. Please contact an election official)	<ul> <li>Battery power is insufficient to return ballot.</li> </ul>	<ul> <li>Ensure AutoMARK is plugged in and mode switch light is green (AC power).</li> </ul>
AutoMARK will not turn on (Startup Failed)	<ul><li>Initial setup procedures failed.</li><li>Battery low or running on battery.</li></ul>	<ul><li>Turn unit off and then back on.</li><li>Try another outlet (green light=AC Power)</li></ul>
Ballot Returned Unmarked	<ul> <li>Ballot was ejected before printing.</li> <li>Voter may have accidently touched the "EXIT Return Ballot" button.</li> <li>Ballot may have been misfed.</li> </ul>	Re-insert ballot.
Battery Low or Running on Battery	<ul> <li>Battery power is low and a yellow rather than a green light appears above the Mode Switch.</li> </ul>	<ul> <li>Check to be sure the unit is plugged in correctly.</li> <li>Try another outlet.</li> </ul>
Audio is not present	<ul> <li>Volume may be set too low.</li> <li>Headphones are not connected.</li> <li>Election information may be wrong.</li> </ul>	<ul> <li>Turn volume level up.</li> <li>Reconnect headphones.</li> <li>Contact Election Administrator.</li> </ul>
Ballot selection is not marked	Ink supply is low.	<ul> <li>Replace ink cartridge.</li> </ul>
No response when key is pressed	■ Unknown.	Shut down and restart system.
No response when a Sip and Puff or personal device is used.	Device cable is not properly attached to access port.	<ul> <li>Check all connections, then shut down and restart system if necessary.</li> </ul>

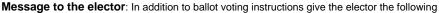
#### If a regular ballot gets jammed in the AutoMARK unit, try to remove it using the following steps:

- Notify the elector that an election official must remove their ballot and that their ballot secrecy may be compromised.
- Lift the lid behind the screen. Once lifted, you can see inside the AutoMARK.
- Inside the AutoMARK at the rear of the visible tray are two tabs.
- Push in on the taps and lift up on the tray to remove tray. Remove the ballot.
- Put the front of the tray back into the AutoMARK machine and push back until it snaps into place.
- Close the cover and turn the key to the 'Test' position, select 'Eject Ballot' and turn the key to 'On.'

## Troubleshooting the ES&S Model 100 Optical Scan Tabulator

Please keep a copy of this Troubleshooting guide with each ES&S Model 100
Additional references are provided in your election day supplies:
(ES&S Model 100 Election Day Checklist and Montana Election Judge Handbook).

The system manufacturer and Secretary of State election office is available to help villease call if you have problems or questions: ES&S 1(877)377-8683 / Secretary of Si



- Once you have finished voting your ballot, please use the secrecy sleeve provided to depos
- Please wait as the tabulator scans your ballot. If accepted the number on the screen will inc
- An error message will appear if there is a potential tabulation error with your ballot. Please t to tabulate your ballot or press reject to have your ballot returned for possible changes. You signal an election judge to assist you if you believe the tabulator has made an error.

#### If the tabulator fails during an election:

- Open and store ballots in the temporary ballot storage bin until the tabulator is repaired or re
- Reference common troubleshooting problems below.
- Additional resources provided in your election day supplies: (Model 100 Election Day Cher
   When available, deposit ballots in another tabulator (ensure tabulator will accept multiple pr
- when available, deposit ballots in another tabulator (ensure tabulator will accept multiple p
- Document machine number, date and time, problem and actions taken to remedy problem.
- If problem persists, contact County Election Admistrator (possibly request replacement Moc

Problem or (Error Message)	Probable Causes	
No votes detected on ballot	<ul> <li>Voter left ballot blank.</li> <li>Ballot was not marked dark enough.</li> <li>Marks are not inside the ovals.</li> </ul>	<ul><li>Hav</li><li>see</li><li>mar</li><li>Vote</li><li>acce</li></ul>
(No AC)	<ul> <li>Ballot tabulator is running on battery and is not plugged into AC power.</li> <li>Wall power outlet is defective.</li> </ul>	■ Che ensi ■ Try
(Diverter Not Found)	<ul> <li>The tabulator is not fully seated.</li> <li>Connection not made from diverter to ballot box.</li> </ul>	<ul><li>Unlog</li><li>ensing</li><li>seat</li></ul>
(No Election Card)	Memory Card is not properly seated.	Ren mer Res
Ballot Jam	<ul> <li>Ballot Box diverter door is not open.</li> <li>Ballot is torn or folded and stuck in tabulator.</li> </ul>	■ The back
Multiple Ballots Detected	<ul> <li>More than one ballot was put through the tabulator.</li> </ul>	■ Put tabu
Ballot Too Long	<ul> <li>Ballot stub was not removed.</li> </ul>	■ Ren
Printer does not print (Printer Time Out Abort Printing)	<ul> <li>Out of printing paper.</li> <li>Paper jam.</li> <li>Paper release lever is in the up position.</li> </ul>	<ul><li>Use reso</li><li>Ren and</li><li>Ens</li></ul>
	Paper is incorrectly oriented.	of ro
Does not automatically print close of polls report	<ul> <li>Media card is removed.</li> <li>Paper ran out.</li> <li>Paper release lever is in the up position.</li> </ul>	Rep Rep Corr Dep Mar

#### Security procedures:

- Ensure all voting system access points are sealed while polls are open.
- Ensure all ballot box access points are sealed while polls are open.
- Before removing/breaking a security seal, ensure more than one judge is present (preferably
- Record the number of the security seal removed and replacement seal as well as reason fo

#### **Troubleshooting the ES&S Model DS200**



#### **Digital Scan Tabulator**

The system manufacturer and the Secretary of State Election office is available to help with any tabulator troubleshooting. Please call if you have any problems or questions.

ES&S 1.800.377.8683 / SOS Elections office 1.406.444.7911.

#### Message to the elector: In addition to ballot voting instructions give the elector the following guidance:

- Once you have finished voting your ballot, please use the secrecy sleeve provided to deposit your ballot in the tabulator.
- · Please wait as the tabulator scans your ballot. If accepted the number on the screen will increase by one per ballot sheet scanned.
- An error message will appear if there is a potential tabulation error with your ballot. Please read the message and either press
  accept to tabulate your ballot or press reject to have your ballot returned for possible changes. You may review your ballot for any
  errors or signal an election judge to assist you if you believe the tabulator has made an error.

#### If the tabulator fails during an election:

- Open temporary ballot storage bin and store ballots there until unit is repaired or replaced.
- Reference common troubleshooting problems below.
  - Additional resources provided in your Election judge handbook, and Uniform Ballot and Voting Systems
    Procedures
- When available, deposit ballots in another tabulator (ensure tabulator will accept multiple precinct ballots)
- Document machine number, date and time, problem and actions taken to remedy the problem.
- If problem persists, contact Election Administrator (possibly request replacement DS200)

Problem or (Error Message)	Probable Causes	Possible Solution
"Election Definition Not Found"	The Usb memory drive is missing, blank or not installed correctly.	Ensure the USB memory drive is installed correctly in one of the slots available.  If the DS20 is still unable to detect the card, contact ES&S for another USB memory drive.
Upper right hand corner display shows a red X through the power icon.	The DS200 is not plugged into the AC power cord or the wall outlet is defective.	Check power cord is plugged in securely to the outlet and also to the machine.  Test all outlets using a nightlight, mobile phone charger or other small electronic device.  Check DS200 power cord for damage. If damage is found, replace the cord.
The reports are generating, but no printing is visible on the paper.	The DS200 printer uses thermal paper and heat transfer to print the information. Printer functionality without visible print means the paper roll is inserted incorrectly.	Reinsert the paper roll. Reprint report(s) as necessary.
What do I use to clean the exterior of the DS200 including the touch screen?	Dirt, grime, finger prints, etc	The DS200 touch screen and exterior can be cleaned with isopropyl alcohol wipes or isopropyl alcohol on soft cloth.

#### Security procedures:

- Ensure all voting system access points are sealed while polls are open
- Ensure all ballot box access points are sealed while polls are open
- Before removing/breaking a security seal, ensure more than one judge is present (preferably one from each party)
- Record the number of the security seal removed and replacement seal as well as reason for removing the seal.

# **7** Voting System Testing

This section covers the four main tests that jurisdictions are responsible to perform on their voting systems.

- ▶ These step-by-step testing procedures found on the next couple of pages include the materials required to do each of the tests, as well as the three areas of analysis that should be addressed.
  - <u>Checklists</u> can be found at the end of this guide and can be downloaded from the SOS website.
     Each testing sub-section has a corresponding checklist for your convenience.
- Although these checklists and procedures were developed as a one-size-fits-all, counties can develop specific procedures for their circumstances.
- ▶ The following voting system guides and checklists include:
  - Acceptance Testing
  - County Internal Testing
  - · Public Certification Testing
  - Election Day Testing

#### **Voting System Testing Overview**

A voting system is defined as a *specific* combination of mechanical, electromechanical, and electronic equipment used to define ballots, cast and count votes, report or display election results, connect the voting system to the voter registration system, and maintain and produce any audit trail information.

Any change or modification to a certified voting system may void the system's certification and require that the voting system be resubmitted for testing and certification. For a list of change or modifications to Montana's voting certified voting systems, please contact the Secretary of State.

#### **Testing Voting Systems**

The U.S. Election Assistance Commission (EAC) has primary responsibility for assuring that voting system designs meet the applicable EAC Guidelines for voting equipment in the United States. State officials have responsibility for testing voting systems to ensure that they will support the specific requirements of each State.

As part of the decision to issue State certification, the State takes into consideration nontechnical issues such as the ownership of the manufacturer, the qualifications of the manufacturer's management team, or the financial stability of the voting system manufacturer. A list of State-certified systems can be obtained from the Secretary of State.

Local officials are responsible for conducting acceptance testing to ensure that the equipment delivered is identical to the equipment certified on the Federal and State levels and that it meets the contractual requirements of the purchase. Local officials are also tasked with conducting performance (logic and accuracy) testing to ensure that the voting system is performing properly.

- There are four main voting system tests. The four tests are:
  - Acceptance
     — This test should be performed any time a device leaves your control and is returned.

- County Internal As soon as all ballots and voting system media arrive, the election administrator should test each ballot style with all voting units as soon as possible.
- **Public** Not more than 30 Days before Election Day. Practice this test with a test deck prepared by the election administrator.
- Election Day On Election Day 5% of each type of voting system must be randomly tested.

Test	Date	Units	Notes
Acceptance	Any time a device leaves your control and is returned, or when a new machine is purchased.	Any new, repaired, loaned equipment that comes into the County.	Use a test deck prepared by the election administrator.
County Internal	As soon as ballots and voting equipment election definition media are received	All voting units and All ballot styles	Use a test deck prepared by the election administrator
Public Test	Not more than 30 days before an election in which the equipment will be used	All units used in the election.	Include backup equipment
Election Day	On Election Day	5% of each type of voting equipment that will be used	Include backup equipment

Testing must be conducted either by or under the strict control of the election administrator. Under no circumstance should voting equipment tests be conducted by a vendor.

It is recommended that your office maintain a complete record of every test that is conducted. *Example:* Use the checklist that has a location for recording the date of the test, the type of device being tested (i.e. assist terminal, ballot scanner, etc.), the serial number of the device and the outcome of the test.

Once you have completed your <u>public testing</u> and <u>election day testing</u>, please fill out a testing certification form (one for each test). These forms are located at the back of this guide and on the Secretary of State's website. The certification forms need to be filled out for each style of machine used in your county (One form for AutoMARKS, one for M-650s, one for M-100s, etc.). Once filled out please send a copy to the Secretary of State's office and keep one for your records.

There are three distinct sub-tests that need to be conducted prior to and during testing: *a test for physical damage*, *a diagnostic test*, *and a test for functional correctness*. These tests should be followed by proper storage and security procedures.

Physical Analysis: This test is to assure that the device is not physically damaged. This test includes:

- Inspection of the outer shell or case that contains the device.
- Inspection of the latches and hinges on the outer shell or case.
- Inspection of all doors and locks.

**Diagnostic Analysis:** This test is to assure that all of the mechanical and electronic components of the device are operating correctly. This test includes:

• Tests of all input/output devices, such as card readers and printers.

- Tests of ballot feed paths.
- Tests of touch-screen clarity and calibration.
- Tests of time, date selection.
- Tests of connections for external devices, such as earphones and personal accessibility devices.

**Functional Analysis:** This test is to assure that the correct versions of the software/firmware are installed in the device and that the device will perform correctly during an election. This test consists of loading an election onto the device, casting or marking a known test set of ballots, and then counting the votes and comparing the results with the known vote totals.

#### **Acceptance Testing**

Local election officials are responsible for conducting acceptance testing to ensure that the equipment delivered is identical to the equipment certified on the Federal and State levels and that it meets the contractual requirements of the purchase. A description of the devices that are currently certified for use in Montana is at the end of this section and available from the Secretary of State's Office.

An acceptance test should also be performed any time a device leaves your control and is returned. Example: If a device is sent out for repair and returned or if a device is loaned to a group or organization for demonstration purposes and returned, you should complete an acceptance test upon its return to your possession. Acceptance tests are conducted on individual devices such as touch screen voting stations, ballot scanners, etc. These devices must be a component of an overall certified voting system.

#### **Acceptance Test - Voter Assist Terminal**

**Materials Required:** In addition to the following, you must know the correct version of operating system and/or firmware in your terminal:

- A flash card with the ballot election definition for your acceptance test.
- Test Ballots.
- Terminal access keys for gaining manager/administrator privilege on the terminal.

#### **Physical Analysis:** Conduct the following with the unit turned OFF:

- 1. Examine the unit for cracks, dents, and structural deficiencies.
  - (Case, cover, latches, hinges, wheels, stand, power cord and plug, etc.)
- 2. Verify that there is an ink cartridge in the printer.

**Diagnostic Analysis:** Conduct the following with the unit turned ON. Some of these tests may require manager/administrator privilege.

- 3. Turn the voter assist terminal on, and as it boots up verify that the correct versions of the operating system and firmware are installed.
- 4. Verify that the date and time are correct.
- 5. Verify the screen condition, clarity, and calibration (calibrate if necessary).
- 6. Print a test ballot to verify that the printer is operating correctly.
- 7. Unplug the unit and verify that it will operate on battery power alone.
- 8. Verify that the battery charger will charge the battery.
- 9. Test access ports and flash card slot (i.e. headphone jack, personal device ports, etc.).

#### Functional Analysis: Install the election definition flash card, turn the unit ON, then:

- 10. Inset test ballots in different orientations (face up, face up backwards, face down, etc.)
- 11. Manually enter one vote for each candidate or issue and verify that each candidate and issue has received exactly one vote (test for blank ballots, over, under, and write-in votes).
- 12. Test all user functions (touch screen buttons, keypad keys, headphone commands, etc.).
- 13. Print voted test ballots to verify that the printer is accurately marking selections and operating correctly.

#### **Security and Storage:** After acceptance testing:

- 14. Apply security seals and record on chain of custody form according to security guidelines.
- 15. Record unit on county property record according to Common Rule information requirements. (Notify the Secretary of State about any changes to the county equipment inventory).
- 16. Store in a secure location with access recorded and limited to authorized personnel only.

#### **Acceptance Test -Ballot Scanners**

**Materials Required:** In addition to the following, you must know the correct version of the operating system and/or firmware that was certified for your ballot scanner:

- A memory card with the election setup for your acceptance test.
- Password, manager key for gaining manager/administrator privilege on the voting station.
- A test set of pre-marked optical scan ballots.

#### **Physical Analysis:** Conduct the following with the ballot scanner turned OFF:

- 1. Examine the unit for cracks, dents, and structural deficiencies. (Case, cover, latches, hinges, wheels, stand, power cord and plug, etc.)
- 2. Verify that there is paper in the printer.

**Diagnostic Analysis:** Conduct the following with the ballot scanner turned ON. Some of these tests may require manager/administrator privilege.

- 3. Turn the ballot scanner on, and as it boots up verify that the correct versions of the operating system and firmware are installed.
- 4. Verify that the date and time are correct.
- 5. Verify the screen condition and clarity.
- 6. Print a test output to verify that the printer is operating correctly.
- 7. Unplug the ballot scanner and verify that it will operate on battery power alone.
- 8. Verify that the battery charger will charge the battery.
- 9. Test all I/O ports and card slots (i.e. serial ports, PCMCIA card slots, etc.).

#### **Functional Analysis:** Install the election media/setup then:

- 10. Zero totals.
- 11. Print zero tape.
- 12. Use the pre-marked test set of ballots to accumulate a significant number of ballots (at least 25) on the ballot scanner.
- 13. Close the election on the ballot scanner.
- 14. Print the results.
- 15. Verify the vote counts are correct.
- 16. Zero totals.

#### **Security and Storage:** After acceptance testing:

- 17. Apply security seals and record on chain of custody form according to security guidelines.
- 18. Record unit on county property record according to Common Rule information requirements. (Notify the Secretary of State about any changes to the county equipment inventory).
- 19. Store in a secure location with access recorded and limited to authorized personnel only.

#### **Acceptance Test - Election Management System**

This Acceptance Test is designed to verify that the Election Management System (EMS) is correctly configured and operating properly. Acceptance tests should always be conducted on a new EMS prior to its use in an election. Also, acceptance tests should be conducted on an EMS that was returned after having left your control. Example: If the EMS computer is sent out for repair or if a new version of the operating system or EMS is installed, an acceptance test should be conducted as soon as possible.

**Materials Required:** In addition to the following, you must know the correct version of your operating system and your EMS. The following components of a voting system are required to complete the acceptance testing procedures:

- One Computer with EMS installed.
- If Ballot Scanners are used:

One of each type of Ballot Scanner that will be used (i.e. M100, M650, DS200, DS850),

One Blank Memory device, and

One set of pre-marked test ballots with known vote totals.

- All cables and devices necessary to operate the EMS are connected to the EMS computer.
- A memory card or storage device with the election setup for your acceptance test.
- One blank storage device used by your system to store tabulation totals.

**Important Prerequisites:** The EMS computer system, consisting of the items above should have been setup and tested before beginning this test. The corresponding Ballot Scanners should have previously completed acceptance testing. If not, run the Ballot Scanner Acceptance Test on these units before beginning this test.

**Verify EMS Software Version:** Turn on the EMS computer. After the computer has started up, verify that the correct versions of the computer's operating system and the EMS software are installed. Contact the Secretary of State's office for a list of EMS software and versions certified for use in Montana.

**Verify EMS Hardware:** Verify that all hardware components of the EMS computer are turned on and functioning properly. *This includes checks of the printer(s), disk drives, etc.* Contact the Secretary of State's office for a list of EMS software and versions certified for use in Montana.

#### **EMS Functionality:**

- 1. Verify that your voting system is not connected to any network.
- 2. Load the EMS acceptance test database on the EMS computer.
- 3. Verify that the Ballot Scanner will support election definition media prepared by EMS. (If your county uses EMS to create election definition media, otherwise skip to #3) Prepare the election definition media using EMS. Load the load the election definition into the OS ballot scanner. Verify that the election definition prepared by EMS loaded and is the correct version.
- 4. Load the election definition into the ballot scanner. Open the election on the ballot scanner. Use the pre-marked set of ballots to cast votes on the ballot scanner. Close the election on the ballot scanner. Print the vote totals on the ballot scanner. Use the standard method of transferring votes from the ballot scanner to the EMS system to load the votes from the ballot scanner to the EMS system. (Step #3 must be conducted for election definition media prepared by the vendor and your EMS program-if applicable.)
- 5. Verify Printed Outputs:
- 6. Close the election on the EMS.
- 7. Print all election reports from the EMS.
- 8. Compare results from the EMS with results from the OS ballot scanner.

#### **Security and Storage:** After acceptance testing:

- 9. On the EMS computer apply security seals to all unused connections including universal serial bus (USB), parallel, and other ports.
- 10. Record EMS computer and software licenses on county property record according to Common Rule requirements. (Notify the Secretary of State about any changes to the county equipment inventory).
- 11. Store in a secure location with access recorded and limited to authorized personnel only.
- 12. Verify that your voting system is not connected to any network.

#### **County Pre-Election Test**

The County Pre-Election Test should be performed as soon as ballots and election media are received to allow optimal time for corrections, if necessary. Ensure that the security seals removed and replaced for pre-election testing are documented on the chain-of-custody log. Pre-Election testing should be conducted on every device, including backup units, and election management software.

The County Pre-Election Test is a full test run on every unit to ensure everything is performing properly.

#### **County Pre-Election Test - Voter Assist Terminal**

**Materials Required:** In addition to the following, you must know the correct version of operating system and/or firmware in your terminal:

- A flash card with the ballot election definition.
- Test ballots prepared by the election administrator.
- Terminal access keys for gaining manager/administrator privilege on the terminal.

#### **Physical Analysis:** Conduct the following with the unit turned OFF:

- 1. Examine the unit for cracks, dents, and structural deficiencies. (Case, cover, latches, hinges, wheels, stand, power cord and plug, etc.)
- 2. Verify that there is an ink cartridge in the printer.

#### Diagnostic Analysis: Use the following steps to insert the flashcard and turn the unit ON.

- 3. Use the silver barrel key to access the flashcard drive and insert the flashcard. (Ensure that the flashcard is inserted with the tail pointing towards the touch screen. Do not force the flash card into the drive as this can damage to the unit.)
- 4. Turn the voter assist terminal on, and as it boots up verify that the correct version of the firmware installed.
- 5. Verify that the date and time are correct.
- 6. Verify the screen condition, clarity, and calibration (calibrate if necessary).
- 7. Print a test ballot to verify that the printer is operating correctly.
- 8. Unplug the unit and verify that it will operate on battery power alone.
- 9. Verify that the battery charger will charge the battery.
- 10. Test access ports and flash card slot (i.e. headphone jack, personal device ports, etc.).

#### Functional Analysis: Install the election definition flash card, turn the unit ON, then:

- 11. Inset test ballots in different orientations (face up, face up backwards, face down, etc.)
- 12. Manually enter one vote for each candidate or issue and verify that each candidate and issue has received exactly one vote (test for blank ballots, over, under, and write-in votes).
- 13. Test all user functions (touch screen buttons, keypad keys, headphone commands, etc.).
- 14. Print voted test ballots to verify that the printer is accurately marking selections and operating correctly.

#### **Security and Storage:** After pre-election testing:

- 15. Apply security seals and record on chain of custody form according to security guidelines.
- 16. Record unit on county property record according to Common Rule information requirements. (Notify the Secretary of State about any changes to the county equipment inventory).
- 17. Store in a secure location with access recorded and limited to authorized personnel only.

#### **County Pre-Election Test - Ballot Scanners**

**Materials Required:** In addition to the following, you must know the correct version of the operating system and/or firmware that was certified for your ballot scanner:

- A memory card or other device with the election setup for your acceptance test.
- Password, manager card, or other device for gaining manager/administrator privilege on the voting station.
- A test set of pre-marked test ballots prepared by the election administrator (not by the vendor).
  - Test ballots should always be marked to reflect an uneven number of votes for each contested race or issue.

#### **Physical Analysis:** Conduct the following with the ballot scanner turned OFF:

- 1. Examine the case and/or cover for cracks or dents.
- 2. Inspect latches, hinges, and wheels, if present.
- 3. Examine the legs and/or stand, if present.
- 4. Inspect the power cord and plug.
- 5. Verify that there is paper in the printer.

**Diagnostic Analysis:** Conduct the following with the ballot scanner turned ON. Some of these tests may require manager/administrator privilege.

- 6. Turn the ballot scanner on, and as it boots up verify that the correct versions of the operating system and firmware are installed.
- 7. Verify that the date and time are correct.
- 8. Print a test output to verify that the printer is operating correctly.
- 9. Unplug the ballot scanner and verify that it will operate on battery power alone.
- 10. Verify that the battery charger will charge the battery.
- 11. Test all I/O ports and card slots (i.e. serial ports, voter card slots, etc.).

**Functional Analysis:** Conduct the following with the ballot scanner turned on Election (TEST) mode. Install the election setup for the test ballot, then:

- 12. Zero totals.
- 13. Print zero tape.
- 14. Use the pre-marked test set of ballots to accumulate a significant number of ballots (at least 25) on the ballot scanner.
- 15. Close the election on the ballot scanner.
- 16. Print the results.
- 17. Verify the vote counts are correct.
- 18. Zero totals.

#### Security and Storage: After pre-election testing:

- 19. Apply security seals and record on chain of custody form according to security guidelines.
- 20. Record unit on county property record according to Common Rule information requirements. (Notify the Secretary of State about any changes to the county equipment inventory).
- 21. Store in a secure location with access recorded and limited to authorized personnel only.

#### **County Pre-Election Test – Election Management System**

**Materials Required:** In addition to the following, you must know the correct version of your operating system and your EMS. The following components of a voting system are required to complete the pre-election testing procedures:

- One Computer with EMS installed.
- If Ballot Scanners are used:
  - One Ballot Scanner,
  - One Blank Memory card/device, and
  - One set of pre-marked test ballots with known vote totals.
- All communications cables and devices necessary to connect the TS voting station and the ballot scanner to the EMS computer.
- One blank storage device of the type used by your system to store the election setup.
- One storage device containing your acceptance test election setup.

**Important Prerequisites:** The EMS computer system, consisting of items above should have been setup and Acceptance Tested before beginning this test. The Ballot Scanner should have previously completed acceptance testing. If not, run the Ballot Scanner Acceptance Test on these units before beginning the pre-election test.

**Verify EMS Software Version:** Turn on the EMS computer. After the computer has started up, verify that the correct versions of the computer's operating system and the EMS software are installed. Contact the Secretary of State's office for a list of EMS software and versions certified for use in Montana.

**Verify EMS Hardware:** Verify that all hardware components of the EMS computer are turned on and functioning properly. *This includes checks of the printer(s), disk drives, etc.* Contact the Secretary of State's office for a list of EMS software and versions certified for use in Montana.

#### **EMS Functionality:**

- 1. Verify that your voting system is not connected to any network.
- 2. Load the EMS pre-election test database on the EMS computer.
- 3. Verify that the Ballot Scanner will support election definition media prepared by EMS. (If your county uses EMS to create election definition media, otherwise skip to #3) Prepare the election definition media using EMS. Load the load the election definition into the ballot scanner. Verify that the election definition prepared by EMS loaded and is the correct version.
- 4. Load the election definition into the ballot scanner. Open the election on the ballot scanner. Use the pre-marked set of optical scan ballots to cast votes on the ballot scanner. Close the election on the ballot scanner. Print the vote totals on the ballot scanner. Use the standard method of transferring votes from the ballot scanner to the EMS system to load the votes from the ballot scanner to the EMS system. (Step #3 must be conducted for election definition media prepared by the vendor and your EMS program-if applicable.)
- 5. Verify Printed Outputs:
- 6. Close the election on the EMS.
- 7. Print all election reports from the EMS.
- 8. Compare results from the EMS with results from the OS ballot scanner.

#### **Security and Storage:** After pre-election testing:

- 9. On the EMS computer apply security seals to all unused connections including universal serial bus (USB), parallel, and other ports.
- 10. Ensure EMS computer hardware and software (licenses) is recorded as county property according to Common Rule requirements. (Notify the Secretary of State about any changes to the county equipment inventory).
- 11. Store in a secure location with access recorded and limited to authorized personnel only.
- 12. Verify that your voting system is not connected to any network.

#### **Public Certification Testing**

Performance testing and certification of voting systems must be done no more than 30 days prior to an election in which a voting system will be used the election administrator shall publicly test and certify that the system is performing properly. A public notice of the time, date and location of the testing must be provided as required by Montana law.

#### **Public Certification Test - Voter Assist Terminal**

**Materials Required:** In addition to the following, you must know the correct firmware version for your terminal:

- A flash card with the ballot election definition.
- Test ballots prepared by the election administrator (not the vendor).
  - Test ballots should always be marked to reflect an uneven number of votes for each contested race or issue.
- Terminal access keys for gaining manager/administrator privilege on the terminal.

#### **Physical Analysis:**

Test all units to be used in the election, including backups.

- 1. Examine the unit for cracks, dents, and structural deficiencies. (Case, cover, latches, hinges, wheels, stand, power cord and plug, etc.)
- 2. Verify security seal numbers match the numbers recorded on the seal log and visually inspect the machine for signs of unauthorized access.
- 3. Ensure that there is an ink cartridge is in the printer and that the print head is clean. Clean dirty print heads by dabbing the print head on a cloth dampened with Windex.

#### **Diagnostic Analysis:**

- 4. Verify that the election definition media is installed, if not install, seal, and record seal number on seal log.
- 5. Turn the voter assist terminal on, and as it boots up verify that the correct firmware version is installed. While the unit is booting up, the firmware version is displayed at the top of the screen (AutoMARK #.#).
- 6. When screen displays "Insert Your Ballot," turn the mode switch key to the "TEST" position.
- 7. Print a test ballot and verify that the printer is operating correctly and clearly.
- 8. Verify the date and time is correct.

  The date and time are located at the bottom of the test ballot and the top right corner of the "TEST" screen.
- 9. Verify the screen condition, clarity, and calibration (calibrate if necessary).

#### **Functional Analysis:**

- 10. Turn the mode switch key to the "ON" position.
- 11. Remove ballot stub and insert a ballot into the terminal.
- 12. Test all ballot marking options while making ballot selections (touch screen, keypad, etc.).
- 13. Test applicable access ports (headphone jack, personal device ports, etc.).
- 14. "Cast and print votes for each candidate and ballot issue.

  Be sure to test for blank ballots, overvotes, undervotes, and write-in votes)."
- 15. Verify that the printer is accurately marking selections and operating correctly.
- 16. "Using additional ballots, repeat steps # # until each selection has been selected and printed.

- Insert additional ballots in different orientations (face up and face down forwards and backwards)."
- 17. "Use pre and hand-marked ballots to verify the terminal's ability to accurately identify pre-marked ballots. *Be sure to test for blank ballots, over, under, and write-in votes."*
- 18. Turn the mode switch key to the "OFF" position.

"Complete and have witnesses sign the Certification of Public Testing form. Make a copy of the Certification of Public Testing and send it to the Secretary of State's office. Store printed test ballots with the Certification of Public Testing form."

#### **Storage and Security**

19. Store equipment in a secure location with access recorded and limited to authorized personnel only.

#### **Public Certification Test - Ballot Scanners**

#### **Physical Analysis:**

- 1. Test every unit to be used in the election, including backup units.
- 2. Examine the unit for cracks, dents, and structural deficiencies. (Case, cover, latches, hinges, wheels, stand, power cord and plug, etc.)
- 3. Verify security seal numbers match the numbers recorded on the chain-of-custody and visually inspect the machine for signs of unauthorized access.
- 4. Verify that there is paper in the printer. Ensure there is a sufficient amount of paper available.

#### **Diagnostic Analysis:**

- 5. Install the election definition media an turn the mode switch key to "OPEN/CLOSE Poll."
- 6. Use the "Initial State Report" to verify the date, time, and firmware version.
- 7. Unplug the ballot scanner and verify that it will operate on battery power alone.
- 8. Verify that the battery changer will charge the battery.

#### **Functional Analysis:**

- 9. Use the menu options to open the polls and if prompted, clear election day totals.
- 10. When prompted, turn the mode switch key to "VOTE."
- 11. Verify the Zero Total Report printed correctly.
- 12. Use a test set of ballots prepared by the election administrator to accumulate a significant number of ballots (at least 25) on the scanner.
  - Test ballots should always be marked to reflect an uneven number of votes for each contested race or issue.
- 13. Turn the mode switch key to "OPEN/CLOSE POLL" and select "Close Polls" menu option.
- 14. Verity the vote counts printed on the Status Report are correct.
- 15. Zero totals by re-opening the polls, selecting clear totals and close polls menu options.
- 16. Turn the mode switch key to the "OFF" position.
- 17. Complete and have witnesses sign the Certification of Public Testing form. Make a copy of the Certification of Public Testing form and send it to the Secretary of State's office.

  Store printed test ballots with the Certification of Vote Tabulation System Testing form.

#### Storage and Security:

- 18. Ensure security seals are intact and match the seal numbers on seal log.

  Security Guidelines permit election definition media to be sealed in the terminal during transportation.
- 19. Store in a secure location with access recorded and limited to authorized personnel only.

#### **Public Certification Test - Election Management Software**

#### **Functional Analysis:**

- 1. Verify that the computer your EMS is installed on is not connected to any network.
- 2. If not already loaded, load the EMS election definition database on the EMS computer.
- 3. Verify the date, time, and software version are correct.
- 4. (Complete steps 4-6 if your county uses EMS to create election definition media, otherwise skip to #7) Verify that the optical scan ballot tabulators will support election definition media prepared at the county.
- 5. Load election definition into the optical scan ballot scanner and use the county-marked test set of ballots to cast votes on the optical scan ballot scanner.
- 6. Close the election on the optical scan ballot scanner and print the vote totals.
- 7. Use the county method for transporting and load vote totals from the optical scan ballot scanner on to the EMS computer.
- 8. Printed EMS reports and verify that they match the optical scan ballot scanner printed vote totals.
- 9. Zero the election totals and close the election on the EMS computer.
- 10. Complete and have witnesses sign the Certification of Vote Tabulation System Testing form. *Store printed test ballots with the Certification of Vote Tabulation System Testing form.*

#### **Storage and Security:**

- 11. On the EMS computer apply security seals to all unused connections including universal serial bus (USB), parallel, and other ports. Record security seal numbers on the security seal log.
- 12. Store in a secure location with access recorded and limited to authorized personnel only.
- 13. Verify that the computer your EMS is installed on is not connected to any network.

#### **Election Day Testing**

Election Day Testing must be performed on each election day where equipment is used. Election Day Testing must take place on at least 5% of voting equipment, with a minimum of one of all machines that will be used, including backup equipment.

Record the outcome of the units tested on election day and securely store these results separate from the ballots.

Election Day Test - Voter Assist Terminal (AutoMARK)

#### **Physical Analysis:**

- 1. Randomly select 5%, a minimum of one, Voter Assist Terminals (AutoMARKS) that will be used, include backup units. A county with 8 units must test at least one unit. A county with 21 units must test at least 2 units, etc.
- 2. Examine the unit for cracks, dents, and structural deficiencies. (Case, cover, latches, hinges, wheels, stand, power cord and plug, etc.)
- 3. Verify security seal numbers match the numbers recorded on the seal log and visually inspect the machine for signs of unauthorized access.
- 4. Ensure that there is an ink cartridge is in the printer and that the print head is clean. Clean dirty print heads by dabbing the print head on a cloth dampened with glass cleaner.

#### **Diagnostic Analysis:**

- 5. Verify that the election definition media is installed, if not, install, seal, and record seal number on seal log.
- 6. Turn the voter assist terminal on, and as it boots up verify that the correct firmware version is installed.
  - While the unit is booting up, the firmware version is displayed at the top of the screen (AutoMARK #.#).
- 7. When screen displays "Insert Your Ballot," turn the mode switch key to the "TEST" position.
- 8. Print a test ballot and verify that the printer is operating correctly and clearly.
- 9. Verify the date and time is correct.

  The date and time are located at the bottom of the test ballot and the top right corner of the ""TEST"" screen.
- 10. Verify the screen condition, clarity, and calibration (calibrate if necessary).

#### **Functional Analysis:**

- 11. Turn the mode switch key to the "ON" position.
- 12. Remove ballot stub and insert a ballot into the terminal.
- 13. Test all ballot marking options while making ballot selections (touch screen, keypad, etc.).
- 14. Test applicable access ports (headphone jack, personal device ports, etc.).
- 15. Print a minimum of two ballots by randomly making contest band ballot issue selections. Be sure to test for blank ballots, overvotes, undervotes, and write-in votes).
- 16. Verify that the printer is accurately marking selections and operating correctly.
- 17. Use pre or hand-marked ballot to verify the terminal's ability to accurately identify a pre-marked ballot.
  - Be sure to test for blank ballots, over, under, and write-in votes.
- 18. Turn the mode switch key to the "OFF" position.
- 19. Complete and have witnesses sign the Certification of Election Day Testing form. Store printed test ballots with the Certification of AutoMARK Testing form.

#### **Security and Storage:**

20. Store equipment in a secure location with access recorded and limited to authorized personnel only.

#### **Election Day Test - Ballot Scanners**

#### **Physical Analysis:**

- 1. Randomly select 5%, a minimum of one, include backup units. A county with 8 units must test at least one unit. A county with 21 units must test at least 2 units, etc.
- 2. Examine the unit for cracks, dents, and structural deficiencies. (Case, cover, latches, hinges, wheels, stand, power cord and plug, etc.)
- 3. Verify security seal numbers match the numbers recorded on the chain-of-custody and visually inspect the machine for signs of unauthorized access.
- 4. Verify that there is paper in the printer. Ensure there is a sufficient amount of paper available.

#### **Diagnostic Analysis:**

- 5. Install the election definition media an turn the mode switch key to "OPEN/CLOSE POLL.
- 6. Use the ""Initial State Report"" to verify the date, time, and firmware version.
- 7. Unplug the ballot scanner and verify that it will operate on battery power alone.
- 8. Verify that the battery changer will charge the battery.

#### **Functional Analysis:**

- 9. Use the menu options to open the polls and if prompted, clear election day totals.
- 10. When prompted, turn the mode switch key to "VOTE."
- 11. Verity the Zero Total Report printed correctly.
- 12. Use a county-made test set of ballots to accumulate a significant number of ballots (at least 25) on the scanner.
- 13. Turn the mode switch key to "OPEN/CLOSE POLL" and select "Close Polls" menu option.
- 14. Verity the vote counts printed on the Status Report are correct.
- 15. Zero totals by re-opening the polls, selecting clear totals and close polls menu options.
- 16. Turn the mode switch key to the "OFF" position.
- 17. Complete and have witnesses sign the Certification of Vote Tabulation System Testing form. Store printed test ballots with the Certification of Vote Tabulation System Testing form.

#### **Security and Storage:**

- 18. Ensure security seals are intact and match the seal numbers on seal log.

  Security Guidelines permit election definition media to be sealed in the terminal during transportation.
- 19. Store in a secure location with access recorded and limited to authorized personnel only.

#### **Election Day Test - Election Management Software**

Election Management System Software:

Unity 3.2.1.0 includes EDM, AIMS, VAT, ESSIM, HPM, ERM, AM, LM.

#### **Functional Analysis:**

- 1. Verify that the computer your EMS is installed on is not connected to any network.
- 2. If not already loaded, load the EMS election definition database on the EMS computer.
- 3. Verify the date, time, and software version are correct.
- 4. (Complete steps 4-6 if your county uses EMS to create election definition media, otherwise skip to #7)

- Verify that the optical scan ballot tabulators will support election definition media prepared at the county.
- 5. Load election definition into the optical scan ballot scanner and use the county-marked test set of ballots to cast votes on the optical scan ballot scanner.
- 6. Close the election on the optical scan ballot scanner and print the vote totals.
- 7. Use the county method for transporting and load vote totals from the optical scan ballot scanner on to the EMS computer.
- 8. Printed EMS reports and verify that they match the optical scan ballot scanner printed vote totals.
- 9. Zero the election totals and close the election on the EMS computer.
- 10. Complete and have witnesses sign the Certification of Testing form. *Store printed test ballots with the Certification of Testing form.*

#### **Security and Storage:**

- 11. On the EMS computer apply security seals to all unused connections including universal serial bus (USB), parallel, and other ports. Record security seal numbers on the security seal log.
- 12. Store in a secure location with access recorded and limited to authorized personnel only.
- 13. Verify that the computer your EMS is installed on is not connected to any network.

# 8 Voting Equipment Storage Procedures

- 1. Verify that all voting equipment is returned to the county election office or designated storage location.
- 2. Verify security seal numbers match the numbers recorded on the chain-of-custody and visually inspect the machine for signs of unauthorized access.
- 3. Examine the unit for cracks, dents, and structural deficiencies. (Case, cover, latches, hinges, wheels, stand, power cord and plug, etc.)
- 4. Schedule maintenance for any equipment in need of repair and order replacement parts for any missing or damaged parts.
- 5. Remove any remaining voting equipment voting definition media.
  - a. Securely store the media until all tabulation and post election audits are completed.
  - b. Return the media to the manufacturer or securely store the election definition media until it is returned to the manufacturer for programming.
- 6. Replace any security seals that were removed and record the seal number(s) on the Security Seal Log.
- 7. Collect, label, and seal all of the related election materials (i.e. logs, sets of test ballots, etc.). Record these security seal numbers on a log describing the materials.
- 8. Store the ballots and election related materials in a secure location not generally accessible. A log should be maintained of all persons having access to that storage location. The log should show the names dates times and purposes for all persons having access to that storage location.
- 9. Store the storage location access log, ballot and election material logs in a secure area not generally accessible.
- 10. The secure ballot, election materials, and voting equipment storage location shall have the following characteristics:
  - a. The location shall remain locked at all times.
  - b. Access to such location shall be exclusively controlled by the County Election Administrator.
  - c. Access shall only be granted to such location for the purpose of machine programming, maintenance, testing or set-up.
  - d. An election official must be present during any machine programming, maintenance, testing or set-up.

# 9 Maintenance Best Practices

- Allow only authorized personnel to physically access the voting system. For tracking purposes, record the dates, times, and purposes for all staff members entering the secure storage area.
- Require staff members to wear identification at all times. When visitors, vendors, maintenance personnel, and other nonstaff individuals enter the election work and secure storage areas, log their entry and exit dates and times, and the purpose of their visit.
- Control and monitor access to the voting system computer(s) at all times. Consider securing
  this computer in a controlled access room and keep a log of everyone who accesses the
  system along with the date and reason. Always require two-person integrity when accessing
  the voting system computer.
- Control the access of vendor personnel to your system until you are absolutely certain that any change, upgrade, or maintenance that they intend to perform has already been approved by the State certification process. It is essential that the vendor never be allowed access to the voting system without a member of the election office staff present. In this context, a nonvendor consultant working under contract with the election office is considered to be a member of the election office staff; however, consultants should be monitored as closely as vendor personnel.
  - County election administrators, especially new election officials should contact their voting system manufacturer to ensure their voting equipment maintenance agreements are current and sufficient for the voting equipment in general.
- Be aware that many voting system components, such as voting equipment, memory cards, and encoders, contain batteries. Develop an understanding of the expected life of the batteries and have a plan in place to manage battery replacement before or on Election Day.
  - Set up a schedule to replace voting equipment batteries according to manufacturer recommended schedules. Contact the voting system vendor for assistance developing this schedule.

## Addendum

In this section you will find copies of forms and documents mentioned in the previous sections. If you need additional copies of these documents, please check the forms section of the SOS website at <a href="http://www.sos.mt.gov/elections/Officials/Forms/index.asp#Voting">http://www.sos.mt.gov/elections/Officials/Forms/index.asp#Voting</a>.

### **Voting System Inventory Log**

					Election Day		Current	HMA Exp		<u>Acquisition</u>		<u>Federal</u>	<u>State</u>	County	
County	<u>Model</u>	<u>Status</u>	<u>SerialNumber</u>	Storage Location	<u>Location</u>	<u>Condition</u>	<u>HMA</u>	<u>Date</u>	<u>Title Holder</u>	<u>Date</u>	Cost	<u>Share</u>	<u>Share</u>	<u>Share</u>	<u>Notes</u>
											\$				
Example	AutoMARK	In Use	EX101	County Crthouse	Precinct 1	fair	Silver	12/1/2013	CountyName	5/1/2006	5,576.14	100%	0%	0%	

If you would like a copy of your most up-to-date inventory on file, please contact the SOS



### Voting System Storage - Access Log

4				
Date	Time In	Time Out	Printed Name	Reason for Access

#### **Montana Election Equipment Acceptance Test - Voter Assist Terminal (AutoMARK)**

An acceptance test should be performed any time a device leaves your control and is returned. Example: If a device is sent out for repair and returned or if a device is loaned to a group or organization for demonstration purposes and returned, you should complete an acceptance test upon its return to your possession. Acceptance tests are conducted on individual devices such as ballot scanners, voter assist terminals, and election management software, etc.

Vot	er As	sist Terminal Information: Model: Serial Number:
Ph	ysic	al Analysis
1		Examine the unit for cracks, dents, and structural deficiencies. (Case, cover, latches, hinges, wheels, stand, power cord and plug, etc.)
2		Ensure that there is an ink cartridge in the printer and that the print head is clean. Clean dirty print heads by dabbing the print head on a cloth dampened with glass cleaner.
Dia	agno	estic Analysis
3		Install the test election definition media card.
4		Turn the mode switch key to "ON" and as it boots up verify that the correct firmware version is installed.  While the unit is booting up, the firmware version is displayed at the top of the screen (AutoMARK #.#)  Firmware Version:
5		When screen displays "Insert Your Ballot," turn the mode switch key to the "TEST" position.
6		Print a Test Ballot and verify that the printer is operating correctly and clearly.
7		Verify the date and time are correct. Date:/Time:: The date and time are located at the bottom of the test ballot and the top right corner of the "TEST" screen.
8		Verify the screen condition, clarity, and calibration (calibrate if necessary).
9		Unplug the unit and verify that it will operate on battery power alone.
10		Verify that the battery changer will charge the battery.
Fu	nctio	onal Analysis
11		Turn the mode switch key to the "ON" position.
12		Remove ballot stub and insert a ballot into the terminal.
13		Test all ballot marking options while making ballot selections (touch screen, keypad, etc.).
14		Test applicable access ports (i.e. headphone jack, personal device ports, etc.).
15		Cast and print votes for each candidate and ballot issue.  Be sure to test for blank ballots, overvotes, undervotes, and write-in votes).
16		Verify that the printer is accurately marking selections and operating correctly.
17		Turn the mode switch key to the "OFF" position.
Se	curit	y and Storage
18		Remove the test election definition media and store in a secure location.
19		Apply security seals and record seal numbers on seal log according to the Security Guidelines. Security seals, at a minimum, must be placed on the media door and across terminal case halves.
20		Record unit on county property record according to Common Rule information requirements. (Notify the Secretary of Stare about new equipment or changes to the county equipment inventory).
21		Store equipment in a secure location with access recorded and limited to authorized personnel only.
		Duplicate this checklist and repeat for each Voter Assist Terminal.

#### Montana Election Equipment County Internal Test - Voter Assist Terminal (AutoMARK)

County Internal testing should be performed as soon as ballots and election media are received. Promptly testing the received election material will allow for any required changes or repairs to be made. Ensure that security seals removed and replaced for pre-election testing are document on the chain-of-custody and security seal log. Pre-Election testing should be conducted on every device, including backup units, and election management software. Duplicate this form and use one form for each Voter Assist Terminal

Vot	er As	ssist Terminal Information: Model: Serial Number:								
Ph	ysic	al Analysis								
	П	Examine the unit for cracks, dents, and structural deficiencies.								
1	Ш	(Case, cover, latches, hinges, wheels, stand, power cord and plug, etc.)  Verify security seal numbers match the numbers recorded on the seal log and visually inspect the machine for								
2		signs of unauthorized access.								
		Ensure that there is an ink cartridge in the printer and that the print head is clean.								
3 Dia		Clean dirty print heads by dabbing the print head on a cloth dampened with glass cleaner								
Die	gno	ostic Analysis								
4		Install the election definition media card.								
		Turn the voter assist terminal on, and as it boots up verify that the correct firmware version is installed.								
5		While the unit is booting up, the firmware version is displayed at the top of the screen (AutoMARK #.#).  Firmware Version:								
6		When screen displays "Insert Your Ballot," turn the mode switch key to the "TEST" position.								
7		Print a test ballot and verify that the printer is operating correctly and clearly.								
8		Verify the date and time are correct. Date:/ Time:: The date and time are located at the bottom of the test ballot and the top right corner of the "TEST" screen.								
9		Verify the screen condition, clarity, and calibration (calibrate if necessary).								
10		Unplug the unit and verify that it will operate on battery power alone.								
11		Verify that the battery changer will charge the battery.								
Fu	nctio	onal Analysis								
12		Turn the mode switch key to the "ON" position.								
13		Remove ballot stub and insert a ballot into the terminal.								
14		Test all ballot marking options while making ballot selections (touch screen, keypad, etc.).								
15		Test applicable access ports (headphone jack, personal device ports, etc.).								
16		Cast and print votes for each candidate and ballot issue.  Be sure to test for blank ballots, overvotes, undervotes, and write-in votes).								
17		Verify that the printer is accurately marking selections and operating correctly.								
18		Using additional ballots, repeat steps 13-17 until each selection has been selected and printed. Insert additional ballots in different orientations (face up and face down, forwards and backwards).								
19		Turn the mode switch key to the "OFF" position.								
Se	curit	y and Storage								
20		Apply security seals and record seal numbers on seal log according to Security Guidelines.  Security Guidelines permit election definition media to be sealed in the terminal during transportation.								
21		Store equipment in a secure location with access recorded and limited to authorized personnel only.								

#### Montana Election Equipment Public Test - Voter Assist Terminal (AutoMARK)

Public testing must not be performed more than 30 days before an election in which the system will be used. Public Testing must be done on systems that will be used during the election and on backup equipment. Duplicate this form and use one form for each unit.

Vot	er As	sist Terminal Information: Model: Serial Number:
Ph	ysic	al Analysis
1		Examine the unit for cracks, dents, and structural deficiencies.  (Case, cover, latches, hinges, wheels, stand, power cord and plug, etc.)
2		Verify security seal numbers match the numbers recorded on the seal log and visually inspect the machine for signs of unauthorized access.
3		Ensure that there is an ink cartridge in the printer and that the print head is clean.  Clean dirty print heads by dabbing the print head on a cloth dampened with glass cleaner
Dia	agno	ostic Analysis
4		Verify that the election definition media is installed, if not install, seal, and record seal number on seal log.
5		Turn the voter assist terminal on, and as it boots up verify that the correct firmware version is installed. While the unit is booting up, the firmware version is displayed at the top of the screen (AutoMARK #.#). Firmware Version:
6		When the screen displays "Insert Your Ballot," turn the mode switch key to the "TEST" position.
7		Print a test ballot and verify that the printer is operating correctly and clearly.
8		Verify the date and times are correct. Date:/ Time:: The date and time are located at the bottom of the test ballot and the top right corner of the "TEST" screen.
9		Verify the screen condition, clarity, and calibration (calibrate if necessary).
Fu	nctio	onal Analysis
10		Turn the mode switch key to the "ON" position.
11		Remove ballot stub and insert a ballot into the terminal.
12		Test all ballot marking options while making ballot selections (touch screen, keypad, etc.).
13		Test applicable access ports (headphone jack, personal device ports, etc.).
14		Cast and print votes for each candidate and ballot issue.  Be sure to test for blank ballots, overvotes, undervotes, and write-in votes).
15		Verify that the printer is accurately marking selections and operating correctly.
16		Using additional ballots, repeat steps 11 - 15 until each selection has been selected and printed. Insert additional ballots in different orientations (face up and face down forwards and backwards).
17		Turn the mode switch key to the "OFF" position.
18		Complete and have witnesses sign the certification of AuoMARK testing form. Store printed test ballots with the certification of AutoMARK testing form.
Se	curit	y and Storage
19		Store equipment in a secure location with access recorded and limited to authorized personnel only.

#### Montana Election Equipment Election Day Test - Voter Assist Terminal (AutoMARK)

Election Day Testing must be performed on Election Day. Election Day Testing must take place on at least 5%, with a minimum of one per county, of Voter Assist Terminals that will be used, including backup equipment. *Duplicate this form and use one form for each unit.* 

Vot	er As	ssist Terminal Information: Model: Serial Number:
Ph	ysic	al Analysis
1		Election day testing must take place on at least 5%, with a minimum of one per county, of Voter Assist Terminals that will be used, including backup equipment.
2		Examine the unit for cracks, dents, and structural deficiencies. (Case, cover, latches, hinges, wheels, stand, power cord and plug, etc)
3		Verify security seal numbers match the numbers recorded on the seal log and visually inspect the machine for signs of unauthorized access.
4		Ensure that there is an ink cartridge is in the printer and that the print head is clean.  Clean dirty print heads by dabbing the print head on a cloth dampened with glass cleaner.
-	igno	estic Analysis
5		Verify that the election definition media is installed, if not, install, seal, and record seal number on seal log.
6		Turn the voter assist terminal on, and as it boots up verify that the correct firmware version is installed.  While the unit is booting up, the firmware version is displayed at the top of the screen (AutoMARK #.#).  Firmware Version:
7		When screen displays "Insert Your Ballot," turn the mode switch key to the "TEST" position.
8		Print a test ballot and verify that the printer is operating correctly and clearly.
9		Verify the date and time is correct. Date:/Time:: The date and time are located at the bottom of the test ballot and the top right corner of the "TEST" screen.
10		Verify the screen condition, clarity, and calibration (calibrate if necessary).
Fu	nctio	onal Analysis
11		Turn the mode switch key to the "ON" position.
12		Remove ballot stub and insert a ballot into the terminal.
13		Test all ballot marking options while making ballot selections (touch screen, keypad, etc.).
14		Test applicable access ports (headphone jack, personal device ports, etc.).
15		Print a minimum of two ballots by randomly making contest band ballot issue selections.  Be sure to test for blank ballots, overvotes, undervotes, and write-in votes).
16		Verify that the printer is accurately marking selections and operating correctly.
17		Turn the mode switch key to the "OFF" position.
18		Complete and have witnesses sign the Certification of AutoMARK Testing form. Store printed test ballots with the Certification of AutoMARK testing form.
Se	<u>curi</u> t	y and Storage
19		Store equipment in a secure location with access recorded and limited to authorized personnel only.

#### **Montana Election Equipment Acceptance Test - Ballot Tabulator(s)**

An acceptance test should be performed any time a device leaves your control and is returned. Example: If a device is sent out for repair and returned or if a device is loaned to a group or organization for demonstration purposes and returned, you should complete an acceptance test upon its return to your possession. Acceptance tests are conducted on individual devices such as ballot tabulators, voter assist terminals, and election management software, etc.

Bal	lot Ta	abulator Information: Model: Serial Number:							
Phy	/sica	l Analysis							
1		Examine unit for cracks, dents, and structural deficiencies. (Case, cover, latches, hinges, wheels, stand, power cord and plug)							
2		Verify that there is paper in the printer and it is properly installed.							
Dia	gnos	tic Analysis							
3		Install the test election definition media card and turn the mode switch key to the appropriate setting.							
4		Use the "Initial State Report" to verify the date, time, and firmware version.  Date: / / Time: : Firmware:							
5		Unplug the ballot scanner and verify that it will operate on battery power alone (N/A for Central Tabulators).							
6		Verify that the battery charger will charge the battery (N/A for Central Tabulators).							
Fui	nctio	nal Analysis							
7		Use the menu options to open the polls and if prompted, clear election day totals.							
8		When prompted, turn the mode switch key to the appropriate vote setting.							
9		Verify the Zero Total Report printed correctly.							
10		Use the test set of ballots to accumulate a significant number of ballots (at least 25) on the scanner.							
11		Turn the mode switch key to "OPEN/CLOSE POLL" and select "Close Polls" menu option.							
12		Verify the vote counts printed on the Status Report are correct.							
13		Zero totals.							
14		Turn the mode switch key to "OFF" and remove test election definition media.							
Sec	curity	and Storage							
15		Apply security seals and record seal numbers on the seal log according to Security Guidelines. At a minimum, seals must be placed on the media and service panel doors.							
16		Record unit on county property record according to the Common Rule information requirements. The Secretary of State must be notified about any changes to the county equipment inventory.							
17		Store in a secure location with access recorded and limited to authorized personnel only.							

#### **Montana Election Equipment County Internal Test - Ballot Tabulator(s)**

County Internal Testing should be performed as soon as ballots and election media are received to allow for any corrections. Ensure that the security seals removed and replaced for County Internal testing are documented on the Chain-of-Custody. County Internal testing should be conducted on every device, including backup units, and election management software.

Duplicate this form and use one form for each unit.

Bal	lot Ta	abulator Information: Model: Serial Number:
Ph	ysic	al Analysis
1		Examine the unit for cracks, dents, and structural deficiencies. (Case, cover, latches, hinges, wheels, stand, power cord and plug, etc.)
2		Verify security seal numbers match the numbers recorded on the seal log and visually inspect the machine for signs of unauthorized access.
3		Verify that there is paper is in the printer. Ensure there is sufficient amount of paper available.
Dia	agno	ostic Analysis
4		Install the election definition media an turn the mode switch key to the appropriate setting.
5		Use the "Initial State Report" to verify the date, time, and firmware version.  Date: / Time: : Firmware:
6		Unplug the ballot scanner and verify that it will operate on battery power alone (N/A for Central Tabulators).
7		Verify that the battery charger will charge the battery (N/A for Central Tabulators).
Fu	ncti	onal Analysis
7		Use the menu options to open the polls and if prompted, clear election day totals.
8		When prompted, turn the mode switch key to the appropriate vote setting.
9		Verify the Zero Total Report printed correctly.
10		Use a county-made test set of ballots to accumulate a significant number of ballots (at least 25) on the scanner.
11		Turn the mode switch key to "OPEN/CLOSE POLL" and select "Close Polls" menu option.
12		Verify the vote counts printed on the Status Report are correct.
13		Zero totals
14		Turn the mode switch key to "OFF."
Se	curi	ty and Storage
15		Apply Security seals and record seal numbers on the seal log according to Security Guidelines. Security Guidelines permit election definition media to be sealed in the terminal during transportation.
16		Store in a secure location with access recorded and limited to authorized personnel only.

#### Montana Election Equipment Public Test - Ballot Tabulator(s)

Public Testing must not be performed more than 30 days before an election in which the system will be used. Duplicate this form and use one form for each unit.

Bal	lot Ta	abulator Information: Model: Serial Number:
Ph	ysic	al Analysis
1		Examine the unit for cracks, dents, and structural deficiencies. (Case, cover, latches, hinges, wheels, stand, power cord and plug, etc.)
2		Verify security seal numbers match the numbers recorded on the seal log and visually inspect the machine for signs of unauthorized access.
3		Verify that there is paper in the printer. Ensure there is a sufficient amount of paper available.
Dia	agno	estic Analysis
4		Install the election definition media an turn the mode switch key to "OPEN/CLOSE Poll."
5		Use the "Initial State Report" to verify the date, time, and firmware version.  Date: / / Time: : Firmware:
6		Unplug the ballot scanner and verify that it will operate on battery power alone (N/A for Central Tabulators).
7		Verify that the battery charger will charge the battery (N/A for Central Tabulators).
Fu	nctio	pnal Analysis
8		Use the menu options to open the polls and if prompted, clear election day totals.
9		When prompted, turn the mode switch key to the appropriate vote setting.
10		Verify the Zero Total Report printed correctly.
11		Use a county-made test set of ballots to accumulate a significant number of ballots (at least 25) on the scanner.
12		Turn the mode switch key to "OPEN/CLOSE POLL" and select "Close Polls" menu option.
13		Verify the vote counts printed on the Status Report are correct.
14		Zero totals.
15		Turn the mode switch key to the "OFF" position.
16		Complete, sign and submit the Public Testing Certification form. Store printed test ballots with the Certification form.
Sto	orag	e and Security
17		Ensure security seals are intact and match the seal numbers on seal log. Security Guidelines permit election definition media to be sealed in the terminal during transportation.
18		Store in a secure location with access recorded and limited to authorized personnel only.

#### Montana Election Equipment Election Day Test - Ballot Tabulator(s)

Election Day Testing must be performed on Election Day. Election Day Testing must take place on at least 5%, with a minimum of one per county, Optical Scan Ballot Tabulators that will be used, including backup equipment. *Duplicate this form and use one form for each unit.* 

Bal	lot Ta	abulator Information: Model: Serial Number:								
Ph	ysic	al Analysis								
1		Randomly select 5%, a minimum of one, Voter Assist Terminals that will be used, include backup units. A county with 8 units must test at least one unit. A county with 21 units must test at least 2 units, etc.								
2		Verify security seal numbers match the numbers recorded on the seal log and visually inspect the machine for signs of unauthorized access.								
3		Ensure that there is an ink cartridge in the printer and that the print head is clean.  Clean dirty print heads by dabbing the print head on a cloth dampened with glass cleaner								
4		Verify that there is paper in the printer. Ensure there is a sufficient amount of paper available.								
Dia	agno	estic Analysis								
5		Install the election definition media an turn the mode switch key to "OPEN/CLOSE POLL."								
6		Use the "Initial State Report" to verify the date, time, and firmware version.  Date: / / Time: : Firmware:								
7		Unplug the ballot scanner and verify that it will operate on battery power alone (NA on Central Tabulators).								
8		Verify that the battery changer will charge the battery (NA on Central Tabulators).								
Fu	ncti	onal Analysis								
9		Use the menu options to open the polls and if prompted, clear election day totals.								
10		When prompted, turn the mode switch key to the appropriate vote setting.								
11		Verify the Zero Total Report printed correctly.								
12		Use a county-made test set of ballots to accumulate a significant number of ballots (at least 25) on the scanner.								
13		Turn the mode switch key to "OPEN/CLOSE POLL" and select "Close Polls" menu option.								
14		Verify the vote counts printed on the Status Report are correct.								
15		Zero totals.								
16		Turn the mode switch key to the "OFF" position.								
17		Complete, sign and submit the Election Day Testing Certification form. Store printed ballots with the certification form								
Se	curi	ty and Storage								
18		Ensure security seals are intact and match the seal numbers on seal log. Security guidelines permit election definition media to be sealed in the terminal during transportation.								
19		Store in a secure location with access recorded and limited to authorized personnel only.								



### Ballots, Media and Other Items Chain of Custody & Security Seal Log

rt 1: (to be completed by	election administrator)-	Materials prepared at election office	e to be delivered to the polling place
		Polling Place:	
Ballot Container Seal #	2 <sup>nd</sup> Seal #	3 <sup>rd</sup> Seal # (if neede	d) 4 <sup>th</sup> Seal # (if needed)
Media/Other Seal #			
erified before transport to p	oolls by:		
lection Administrator (Date,	/Time)	and one othe	er official
art 2: Ito he completed by a		lling place manager before the polls	onen
Ballot Container Seal #	2 <sup>nd</sup> Seal #	3 <sup>rd</sup> Seal # (if neede	
			.,
NA 11 /O11 C 111			
Media/Other Seal #			
olling Place Manager or Chie			
Ballot Container Seal #	2 <sup>nd</sup> Seal #	3 <sup>rd</sup> Seal # (if neede	d) 4 <sup>th</sup> Seal # (if needed)
Danier Gentamer Gearm		5 564. 11 (11 11 11 11 11 11 11 11 11 11 11 11	a, com (in necessar)
Maralia /Othern Carl II			
Media/Other Seal #			
fter Polls Closed – Seals ver	ified by:		
olling Place Manager or Chie	ef Election Judge (Date/Ti	me) Election Judg	ge
art 4: (to be completed by e	election administrator u	non return to county)	
Ballot Container Seal #	2 <sup>nd</sup> Seal #	3 <sup>rd</sup> Seal # (if neede	d) 4 <sup>th</sup> Seal # (if needed)
Maralia /Other of Caral III			
Media/Other Seal #			
Jpon Return to Election Offic	e Seals Verified by:	l .	
pon netarn to Election Offic	e scais verifica by.		
Election Administrator (Date,	<del></del>	and one other	

See next page for seal removal/replacement log

#### Security Seal Log – Page 2 of Chain of Custody & Security Seal Log

Election:	Precinct	Polling Place	9:			
Removed Seal	Sealed Object	Seal Location	Seal Number Removed/Placed	Reason Removed	Date	Initials
(place removed seal here)	☐ Ballots ☐ Media ☐ Other	☐ Storage Box ☐ Envelope ☐ Other				
(place removed seal here)	☐ Ballots ☐ Media ☐ Other	☐ Storage Box☐ Envelope☐ Other				
(place removed seal here)	☐ Ballots ☐ Media ☐ Other	☐ Storage Box☐ Envelope☐ Other☐				
(place removed seal here)	☐ Ballots ☐ Media ☐ Other	☐ Storage Box☐ Envelope☐ Other				
(place removed seal here)	☐ Ballots ☐ Media ☐ Other	☐ Storage Box ☐ Envelope ☐ Other				
(place removed seal here)	☐ Ballots ☐ Media ☐ Other	☐ Storage Box☐ Envelope☐ Other				

<sup>\*</sup>This form must be retained for four years.



# Voting System Chain of Custody & Security Seal Log Chain of Custody on front, Security Seal Log on the reverse side.

This form is for security and tracking voting/tabulating equipment including transport to the polls and back.

Part 1: (to be completed	by election administrator)-	Materials prepared at electi	ion office to be delivered to	o the polling place	
County:	Precinct:	Polling Place:		Election Date:	
AutoMARK Serial #	Flashcard Door Seal #	Side of Unit Seal #	Other:	Other:	
M100 /DS200 Serial #	Key/Printer Door Seal #	Media Access Seal #	Access Panel Seal #	Ballot Box Seal #	Other:
M650/DS850 Serial #	Media Drive Seal #	Access Door seal #	USB Door 2 #	USB Door 3 #	Power Doo
Verified by:					
Election Administrator (De			one other official		
Part 2: (to be completed b		lling place manager before t	the polls open)		••••••
AutoMARK Serial #	Flashcard Door Seal #	Side of Unit Seal #	Other:	Other:	
M100 /DS200 Serial #	Key/Printer Door Seal #	Media Access Seal #	Access Panel Seal #	Ballot Box Seal #	Other:
M650/DS850 Serial #	Media Drive Seal #	Access Door seal #	USB Door 2 #	USB Door 3 #	Power Doo
	Chief Election Judge (Date/Ti	•	ction Judge		
AutoMARK Serial #	Flashcard Door Seal #	Side of Unit Seal #	Other:	Other:	
M100 /DS200 Serial #	Key/Printer Door Seal #	Media Access Seal #	Access Panel Seal #	Ballot Box Seal #	Other:
M650/DS850 Serial #	Media Drive Seal #	Access Door seal #	USB Door 2 #	USB Door 3 #	Power Doo
After Polls Closed – Seals	verified by:				
Polling Place Manager or 0	Chief Election Judge (Date/Ti	ime) Elec	ction Judge		
Part 4: (to be completed b	y election administrator up	on return to election office)			•••••
AutoMARK Serial #	Flashcard Door Seal #	Side of Unit Seal #	Other:	Other:	
M100 /DS200 Serial #	Key/Printer Door Seal #	Media Access Seal #	Access Panel Seal #	Ballot Box Seal #	Other:
M650/DS850 Serial #	Media Drive Seal #	Access Door seal #	USB Door 2 #	USB Door 3 #	Power Door
Upon Return to Election O	ffice Seals Verified by:				
Election Administrator (De	ate/Time)	and	one other official		

#### Security Seal Log – Page 2 of Chain of Custody & Security Seal Log

Election:	Precinct:	Polling F	Place:			
Removed Seal	Machine Type Machine Number	Machine Seal Location	Seal Number Removed/Placed	Reason Removed	Date	Initials
(place removed seal here)	☐ AutoMARK ☐ M100 ☐ M650 ☐ DS200 ☐ DS850	☐ Media Card ☐ Access Panel ☐				
(place removed seal here)	☐ AutoMARK ☐ M100 ☐ M650 ☐ DS200 ☐ DS850	☐ Media Card ☐ Access Panel ☐				
(place removed seal here)	☐ AutoMARK ☐ M100 ☐ M650 ☐ DS200 ☐ DS850	☐ Media Card ☐ Access Panel ☐ ☐				
(place removed seal here)	☐ AutoMARK ☐ M100 ☐ M650 ☐ DS200 ☐ DS850	☐ Media Card ☐ Access Panel ☐ ☐				
(place removed seal here)	☐ AutoMARK ☐ M100 ☐ M650 ☐ DS200 ☐ DS850	☐ Media Card ☐ Access Panel ☐ ☐				
(place removed seal here)	☐ AutoMARK ☐ M100 ☐ M650 ☐ DS200 ☐ DS850	☐ Media Card ☐ Access Panel ☐				

<sup>\*</sup>This form must be retained for four years.



### **Certification of Public Testing**

- The following testing procedures are required for voting systems certified for use in Montana pursuant to Montana Code Annotated and Administrative Rule: No More than 30 days prior to an election in which a voting system is used, the election administrator shall test and certify that the system is performing properly. 13-17-212(1), MCA
- The Secretary of State's office shall ensure that at least 10% of all voting systems in the state have been tested and certified at least once every calendar year.13-17-212(2),MCA
- Testing and certification of voting systems must include an Election Day test of 5% of voting systems, a minimum of one per county to validate the accuracy of voted paper ballots with the voting system results.

#### Instructions

Signature of Witness (if present)

- Complete one form for each type of voting system used in the election
- o Fill in Election Administrator's name and County
- o Include the number of machines tested and the number that will be used in the election
- Select Machine that was tested
- Choose date from date dropdown
- o Election Administrator and at least one witness must sign certification

<ul> <li>Print and file in County</li> </ul>	y Election Office and with the Secretary of State	
	Election Administrator for the County of	
	ast one witness, tested the programming of # of mad Name/Number, according to Montana law, administ	
Signed on this date: mm/dd/yyyy		
Signature of Election Administrator	_	
Signature of Witness		
Signature of Witness (if present)		
Signature of Witness (if present)		
Signature of Witness (if present)	<u> </u>	



### **Certification of Election Day Testing**

The following testing procedures are required for voting systems certified for use in Montana pursuant to Montana Code Annotated and Administrative Rule: No More than 30 days prior to an election in which a voting system is used, the election administrator shall test and certify that the system is performing properly. 13-17-212(1), MCA

The Secretary of State's office shall ensure that at least 10% of all voting systems in the state have been tested and certified at least once every calendar year.13-17-212(2),MCA

Testing and certification of voting systems must include an Election Day test of 5% of voting systems, a minimum of one per county to validate the accuracy of voted paper ballots with the voting system results.

• Instructions

Signature of Witness (if present)

- Fill in Election Administrator's name and County
- Select Machine that was tested
- o Choose date from date dropdown
- o Election administrator and at least one witness must sign certification.
- o Print and file in County Election Office and with the Secretary of State upon request

	Election Administrator for the County of	
<del>-</del>	east one witness, tested the programming of at least kups on election day, according to Montana law, adm	=
validated the accuracy of voted pa	per ballots with the voting system results.	
Signed on this date: mm/dd/yyyy		
Signature of Election Administrator	<u> </u>	
Signature of Witness	<u></u>	
Signature of Witness (if present)	<u> </u>	
Signature of Witness (if present)	<u> </u>	
Signature of Witness (if present)	<u></u>	